TESTIMONY OF PETER CRAM, ASSISTANT PROFESSOR OF MEDICINE AT THE UNIVERSITY OF IOWA BEFORE THE HOUSE SUBCOMITTEE ON HEALTH CONCERNING SPECIALTY HOSPITALS

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INTRODUCTION

Hello. My name is Peter Cram. I am a physician, health services researcher and Assistant Professor of Internal Medicine at the University of Iowa Carver College of Medicine. I would like to thank Chairman Deal and Ranking Member Brown for inviting me to speak today.

My research involves three principal areas: cost-effectiveness of new medical technologies; medical errors in the outpatient setting; and measuring quality of care in hospitals. Over the past 18 months, I have conducted investigations in cooperation with researchers at the Iowa City Veterans Administration Hospital assessing the quality of care provided by specialty cardiac and general hospitals. In terms of conflicts-of-interest, I have none to disclose. In particular, I do not receive funding from any specialty hospital associations or the American Hospital Association. There are no specialty hospitals located in Iowa, where I am employed.

My testimony today will briefly cover 5 specific topics related to specialty hospitals: 1) the history of hospital specialization; 2) the specialty hospital controversy; 3) available data on specialty hospitals; 4) areas of uncertainty; 5) recommendations to the committee.

The History of Hospital Specialization

While specialty hospitals are a relatively new phenomenon, it is important to recognize that hospital specialization *per se* is not a new development. The healthcare management, health economics, and health services research literature have been addressing the potential benefits of hospital specialization for years.[1-4] For example, in the past healthcare management would have considered a free-standing rehabilitation hospital to be a specialty hospital while today such free-standing hospitals are considered commonplace.[5] Analyses in health economics have provided additional evidence that hospital specialization is not a new phenomenon, but rather that general hospitals have become increasingly specialized over decades;[4, 6, 7] interestingly, the majority of these studies have found evidence that hospital specialization is associated with improved efficiency.[8, 9] Finally, studies from the health services research literature have focused less on hospital specialization and more on the relationship between hospital procedural volume and patient outcomes.[10-13] These studies have demonstrated a consistent relationship between volumes of procedures such as bypass surgery or esophageal surgery and lower patient mortality.[14-20] Some policy makers have suggested that based upon this evidence, certain high risk procedures should be triaged to specialized hospitals that perform large numbers of these procedures (a.k.a. regionalization).[19, 21, 22]

Thus, while specialty hospitals can in many ways be considered a new development, hospital specialization has actually been progressing for decades.

That being said, the new generation of specialty hospitals appears to be different for at least three reasons: first, and foremost, their focus on procedural aspects of medicine that tend to be more lucrative than "cognitive" aspects of medicine; second, their focus on healthier patient populations within their areas of specialization (e.g., cardiac care, orthopedic care); third, physician investment/ownership of specialty hospitals.

The Specialty Hospital Controversy

Despite the widespread concern about the emergence of specialty hospitals, the absolute number of specialty hospitals remains relatively small. By most estimates there are no more than 100 such hospitals in operation currently.[23, 24] Nevertheless, the 300% growth rate in the number of specialty hospitals between 1990-2000 and the purported economic impact of these new hospitals on existing general hospitals merits discussion.

The controversy concerning specialty hospitals ultimately can be distilled down to a limited number of issues.

Supporters of specialty hospitals claim that:

- Specialty hospitals perform higher volumes of procedures.
- By focusing on narrow procedural areas, specialty hospitals deliver improved outcomes relative to general hospitals.

Opponents of specialty hospitals allege that:

- Specialty hospitals preferentially select healthier patients for admission (a.k.a. "cherry picking").
- Specialty hospitals do not generate any improvement in patient outcomes.
- Specialty hospitals reduce the profitability of general hospitals.

Available Data

While 18 months have passed since Congress passed their initial moratorium on further specialty hospital development, high-quality data remain limited. This underscores the complexity of measuring the impact of specialty hospitals on general hospitals and the possible value that specialty hospitals add to the health care delivery system.

I will now enumerate each of the major areas of controversy and will summarize both the available data addressing each concern and the major gaps in these data that should be answered before rendering a binding decision on this issue.

1) Specialty hospitals admit healthier patients than general hospitals.

There are four studies that have compared the severity-of-illness of patients admitted to specialty hospitals and general hospitals. A study performed by the Lewin Group for MedCath Inc. found that MedCath specialty cardiac hospitals admitted sicker patients than those admitted to competing general hospitals.[25] Alternatively, three studies have found evidence that specialty hospitals admit healthier patients than general hospitals.[23, 24, 26] In an analysis we recently published in the New England Journal of Medicine, we found that Medicare beneficiaries admitted to specialty cardiac hospitals had lower rates of kidney failure, heart failure and were less likely to be admitted with myocardial infarction ("heart attacks") than patients admitted to general hospitals.[26] In aggregate these studies suggest that specialty hospitals admit healthier patients than competing general hospitals.

A recently released report by MedPAC provides some data to explain why specialty hospitals (and, in actuality, all hospitals) prefer admitting these healthier patients.[24] Under the Medicare Prospective Payment System (PPS), there is a well recognized variation in profitability of caring for different patients with the same diagnosis.[27-29] This variation in profitability occurs because Medicare typically pays hospitals a single "lump-sum" payment for providing care to a specific patient based upon the patient's diagnosis.[30] To the extent that among patients with the same diagnosis, some are sicker (and hence more expensive to care for) and others are healthier (and less expensive to care for), but Medicare payments are similar for both patient groups, healthier patients become more profitable for hospitals than sicker patients. Hospitals that could consistently attract healthier patients without attracting the sicker patients could make excess profits.

Thus, the balance of the available data suggest that specialty hospitals care for patients with less severe disease than competing general hospitals. This behavior is likely to be motivated by inefficiencies in the Medicare PPS.

There are, however, a number of important and unanswered questions:

- How do specialty hospitals attract healthier patients?
- Do healthier patients seek care from specialty hospitals or do physician-investors preferentially admit healthier patients to the specialty hospitals?

2) Specialty hospitals perform higher volumes of procedures than competing general hospitals.

Two studies have provided data on the volumes of procedures performed by specialty and general hospitals. A report by the GAO (Government Accountability Office) found evidence that specialty hospitals perform significantly greater numbers of cardiac and orthopedic procedures than their general hospital competitors.[31] Our research published in the New England Journal of Medicine found that cardiac specialty hospitals performed significantly more angioplasty procedures and coronary bypass surgeries on average than general hospitals on average, confirming the GAO report. This is important, given the large body of evidence that has found that patients experience better outcomes in higher volume hospitals. However, it is important to note that we also found wide variation in the volumes of procedures performed by individual hospitals.

The balance of data suggest that the average specialty hospital performs greater numbers of procedures (e.g., bypass surgery and angioplasty) than the average competing general hospitals.

There are a number of important unanswered questions concerning the volumes of procedures performed by specialty and general hospitals:

- Do the differences in procedural volume demonstrated for specialty cardiac hospitals and general hospitals also apply to other types of specialty hospitals (e.g., orthopedic hospitals)?
- How do new specialty hospitals generate the high volumes of procedures they perform? Does the specialty volume represent a consolidation of patients formerly treated in many low-volume general hospitals within the new specialty hospital? Do these patients come from large general hospitals? Or does the specialty hospital volume represent an increase in the number of procedures performed on groups of patients who were not receiving procedures previously?

3) Specialty hospitals generate improved patient outcomes compared to general hospitals.

Data comparing the outcomes of patients receiving care in specialty and general hospitals are very limited. A study by the Lewin Group reported that patients treated in MedCath cardiac hospitals had a 17% lower risk of death than patients treated in community hospitals.[25] Our analyses found that Medicare beneficiaries who underwent angioplasty or bypass surgery in specialty cardiac hospitals had approximately a 30% lower risk of death before we accounted for the fact that the average patient in a specialty

hospital was healthier than the average patient in a general hospital. However, once the analyses accounted for the fact that specialty hospitals were caring for healthier patients, mortality rates in specialty cardiac hospitals were 15% lower and this difference was no longer statistically significant. Finally, once we accounted for the healthier patients and the fact that specialty hospitals perform significantly greater numbers of angioplasty and bypass surgery than general hospitals, mortality rates in specialty and general hospitals were nearly identical.

Thus, the available data suggest that mortality rates in specialty cardiac hospitals and general hospitals are similar once patient characteristics and hospital procedural volume have been accounted for. From this perspective, it is reasonable to say that there is nothing inherent in the specialty hospital model that produces improved outcomes. Alternatively, it could be argued that mortality rates in specialty cardiac hospitals are approximately 10-15% lower because of the fact that specialty cardiac hospitals perform significantly more procedures than the average general hospital.

There are a number of unanswered questions that remain. In particular:

- How do specialty and general hospitals compare for other non-cardiac procedures (e.g., orthopedic procedures)?
- How do specialty and general hospitals compare with respect to outcomes other than mortality (e.g., patient satisfaction, functional status)?

4) Specialty hospitals reduce the profitability of general hospitals.

While there is widespread concern and anecdotal reports that specialty hospitals are reducing the profitability of competing general hospitals, available data are limited. A study by the GAO did not find clear evidence that this was occurring. Similarly, preliminary analyses by Schneider et al. found evidence lacking that specialty hospitals significantly harm general hospital profitability.[31, 32]

Thus, available data have not demonstrated that specialty hospitals reduce general hospital profitability in the short term.

However, there are a number of questions that remain regarding the impact of specialty hospitals on the profitability of general hospitals. In particular:

- What is the long-term effect of specialty hospitals on the financial performance of general hospitals?
- Does the entry of specialty hospitals limit the ability of general hospitals to perform important social missions such as charity care?

Summary of available data and areas of uncertainty

Specialty hospitals appear to admit healthier patients than competing general hospitals and on average specialty hospitals perform many more procedures per-year than competing general hospitals. For cardiac procedures (e.g., bypass surgery, angioplasty) unadjusted mortality is significantly lower in specialty hospitals than general hospitals, but this difference is no longer statistically significant once the analyses have accounted for the fact specialty hospitals treat healthier patients. Adjusting for patient characteristics and hospital procedural volume demonstrates similar mortality rates in specialty cardiac and general hospitals. In short-term analyses, specialty hospitals do not appear to reduce general hospital profitability.

There are a number of important areas of uncertainty that require further investigation. First, it is unclear how and why healthier patients concentrate in specialty hospitals. Second, it is unclear whether the findings we have demonstrated with respect to hospital procedural volume and patient mortality can be extrapolated from cardiac hospitals to other types of specialty hospitals. Third, it is unclear how specialty and general hospitals compare in other important types of outcome measures such as patient satisfaction or functional status. Finally, the longer-term financial impact of new specialty hospitals on existing general hospitals is uncertain.

6) Recommendations and Conclusions.

In summary, I agree with the recent recommendations that the Medicare Payment Advisory Commission (MedPac) presented to The Congress in March, 2005.

First, I believe that extending the current moratorium on further specialty hospital development to allow for time for investigation of the remaining questions about specialty hospitals and their impact on general hospitals is reasonable. Furthermore, if the moratorium on specialty hospitals is extended to allow for further study, The Congress should consider making funds available either through Medicare or the National Institutes of Health to facilitate these studies. Second, I agree with the MedPAC conclusion that updating the current Medicare PPS could reduce the financial incentives that may encourage hospitals to focus on admitting healthier (more profitable) patients. Third, I believe that any legislation prematurely banning specialty hospitals could hinder regionalization of high-risk medical procedures and could ultimately harm patient care.

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